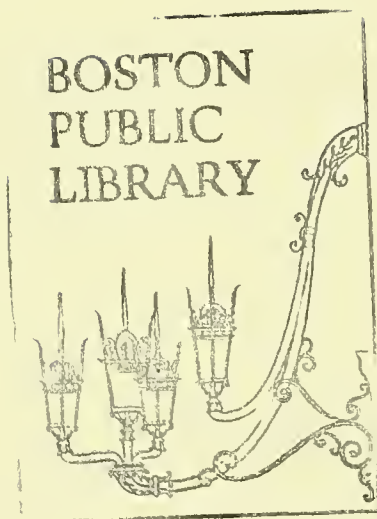


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Chapter 11

ROXBURY-NORTH DORCHESTER GNRP AREA

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Chapter 11

ROXBURY GNRP AREA R-50

The purpose of this chapter is to show how the circulation proposals for the Washington Park Project relate to the general circulation plan for the Roxbury GNRP area. Particular attention was given to the need for adequate radial and cross-town street capacity in the Roxbury area. The Roxbury circulation plan also was reviewed in relation to the general circulation proposals for the Inner Area or "regional core", which was developed jointly with B. R. A. staff planners.

Numerous meetings concerning the circulation plan for Roxbury were held with the project planning officer, other staff members of the B. R. A., and other city officials. Consideration was given to the traffic projections developed by the Boston College Seminar Studies of 1959-1960,⁽¹⁾ to the recent Inner Belt traffic study⁽²⁾ to proposals regarding the relocation of the Forest Hills elevated line, and to other planning proposals affecting the Roxbury area.

(1) Studies of Urban Transportation prepared by Seminar Research Bureau, Boston College, Boston, Massachusetts, 1960, in three volumes.

(2) Inner Belt and Expressway System, prepared by Hayden, Harding and Buchanan and Charles A. McGuire Associates for Massachusetts Department of Public Works, Boston, Massachusetts, 1962.

LAND USE OBJECTIVES

Land use and circulation plans for the GNRP area outside of the Washington Park Project area were not fully crystallized at the time that GNRP plans were reviewed. Insofar as circulation needs were concerned, however, they were adequately developed. In general, the present land use pattern is to be retained with minor changes. The urban renewal program emphasizes conservation and rehabilitation of existing development.

Washington Park Project Area

Plans are farther advanced for the Washington Park Project than for other parts of the GNRP. The area is to remain predominantly residential. New neighborhood commercial land use is proposed on Warren and Washington Streets near the proposed Washington Park Boulevard. Existing industrial land use in the project area will be either upgraded or phased out for other types of land use. Additional industrial use is not contemplated in this project area. The Dudley Station Area will be reinforced by construction of a new civic center south of Dudley Street near Harrison Avenue. Other community facilities will be provided in the project area for convenient service to all residents. The area of park land will be increased, and in addition parklike treatment will be given to several new residential developments and to the borders of several major streets.

Dudley Station Area

The Dudley Station Area is intended to remain as the major commercial

focus of Roxbury and adjacent areas. It will be strengthened by the proposed new civic center in the Washington Park Project. Circulation proposals, notably the relocation of Washington Street, will facilitate the renewal of this area.

Expressway Interchange Area

Land use planning in the area north of Roxbury Street and west of Washington Street depends on the location finally selected for the Inner Belt - Southwest Expressway interchange. The considerations involved are discussed in Chapter 5.

Other Areas

Industrial land use is proposed along the southerly side of Massachusetts Avenue from Hampden Street to Columbia Road. Elsewhere in the GNRP, residential land use and associated service activities will predominate.

PRESENT CIRCULATION PATTERN

Because Roxbury did not originally develop according to a plan, like the Back Bay or the South End, there are many complex intersections, few continuous streets, many streets of inadequate width, and many abrupt changes in street width. There is an inadequate system of collector streets, and the area lacks a satisfactory cross-town route north of Seaver Street. The most seriously confused street pattern exists in the immediate vicinity of Dudley Street MTA Station.

Traffic Volumes

Present traffic volumes in the Roxbury area are indicated in Table 11-1 and Figure 11-2. Massachusetts Avenue, Columbia Road, Seaver Street and Columbus Avenue (all on the periphery of the area) carry the heaviest volumes. These range from 18,000 to more than 30,000 vehicles per day. The most heavily traveled internal street is Warren Street, with a volume of approximately 15,000 vehicles per day for most of its length. Washington Street (Roxbury)⁽³⁾ Blue Hill Avenue, and Tremont Street are also heavily traveled, with daily volumes between 11,000 and 13,000 vehicles. The major cross-town street, Dudley Street, is severely congested and is operating at capacity.

The radial streets show a marked directional unbalance in traffic flow during peak hours, as evident in Figure 15- , which shows the hourly variation of traffic by direction of flow at selected locations. The peak hour traffic is somewhat more balanced on streets which carry both cross-town and radial traffic, such as Massachusetts Avenue.

Street Widths

Few of the streets in the Roxbury area, except those which are peripheral to it, have roadways wide enough for major traffic volumes. Columbia Road, Columbus Avenue-Seaver Street, Blue Hill Avenue, and sections of Massachusetts

(3) There are two "Washington Streets" within the GNRP area, Washington Street, Roxbury and Washington Street, Dorchester.

Avenue provide multi-lane operation. With the exception of the latter, they are divided highways with curb-to-curb widths between 65 and 90 feet. These streets presently provide two effective moving traffic lanes in each direction. Additional lanes would be made available on many of these streets if the existing all-day or peak hour parking regulations were enforced.

Traffic Problem Areas

Most of the Major intersections are operating at or near capacity during peak periods, and several areas are chronically congested under present conditions. As a result there is a tendency for motorists to use secondary streets or even minor residential streets to circumvent the problem locations during peak periods.

Major problem areas have been listed in the approximate order of relative severity and are given below:

- Dudley Station Area
- Grove Hall Area
- Dudley Street -- particularly near Blue Hill Avenue
- Columbia Square (Upham's Corner)
- Edward Everett Square
- Roxbury Crossing
- Blue Hill Avenue and Columbia Road
- Blue Hill Avenue and Seaver Street

The following additional problem areas lie on or near the boundaries of Roxbury and the adjoining GNRP and project areas, which are given in parentheses:

Massachusetts Avenue, Albany Street, Southampton Street
(South End, South Bay)

Jackson Square - Roxbury Crossing Area
(Jamaica Plain, Parker Hill - Fenway)

Egleston Square (Jamaica Plain)

Columbus Avenue, Ruggles and Whittier Streets
(Parker Hill - Fenway)

Traffic Controls

A large number of intersections within the GNRP area (more than 50 in all) are presently signalized. However, a number of important and highly complex points are uncontrolled. The latter include several intersections near the Dudley Street MTA Station, the Humboldt and Warren Avenue intersection, John Eliot Square, and Columbus Avenue and Roxbury Street.

There are also a large number of pedestrian-actuated signals in the area. These are often interconnected with other nearby signals. However, the pattern of signal locations and type of control employed indicates a lack of an over-all system in this section of the city. There is also a general lack of stop sign protection for major streets from minor cross streets.

While many minor residential streets are one-way, few important streets are presently operated as one-way streets. This is due in part to the lack of comparable parallel pairs of streets which are suitable for this type of operation. The only major pair of one-way streets are Roxbury Street and Dudley Street west of Dudley Terminal. Segments of streets near Massachusetts Avenue and

Albany Street are operated one-way as part of a rotary intersection. A portion of Ruggles Street lying in Roxbury is a one-way street.

Public Transit

The MTA station at Dudley Street is one of the most intensively used rapid transit stations outside of downtown Boston. Twelve bus lines converge on this station via Dudley Street, Washington Street, and Warren Street. Over 16,000 persons boarded rapid transit trains at this station daily in 1961.

Buses contribute to congestion on Dudley Street, Warren Street, and Blue Hill Avenue, where inadequate provision has been made for curb loading, and existing parking prohibitions in bus loading zones are generally ineffective. As transit vehicles are more efficient users of street space than private cars, it is desirable to give preference to the former wherever possible.

CIRCULATION PLAN

The circulation plan for the GNRP area is shown in Figure 15-2. It was prepared on the basis of extensive discussion with the project planners. It provides a network of major arterial, collector and local feeder streets coordinated with the expressway system. The plan is intended to strengthen the peripheral major route system and to channel the remaining interior traffic flows onto fewer and better-defined traffic facilities.

Expressway System

Two expressways, the Southwest and the Inner Belt, will run along GNRP area boundaries. The interchange between these two expressways will

be located on the northerly boundary of the GNRP. The desirability of a location of this interchange adjacent to the New Haven Railroad tracks is indicated in Chapter 5.

Southwest Expressway - The Southwest Expressway has been planned for construction along the west side of Roxbury GNRP as a part of the Interstate System. It is expected that its capacity of 132,000 cars per day will largely be absorbed by long-distance trips. (The Southeast Expressway, somewhat to the east of Roxbury, is already operating at possible capacity.)

Although much of the radial traffic from areas south of Boston will probably be carried on this expressway, portions of Milton and of Dorchester will continue to contribute traffic to the major radial arterials in Roxbury.

Inner Belt Expressway - The Inner Belt Expressway has been planned for construction along the northern edge of the GNRP area. Together with its parallel service road system, it can be expected to relieve existing congestion on Dudley Street and on Massachusetts Avenue northwest of Albany Street. A major consideration of the circulation plan has been direct and convenient access from the primary street system of Roxbury into the ramps and service roads of the Inner Belt System.

Major Arterials

The major arterial system of the Roxbury GNRP is intended primarily to distribute traffic to the expressway system. It also will serve some through

traffic, particularly during peak hours.

Columbus Avenue (north of Egleston Square) - After the Southwest Expressway is built, Columbus Avenue will retain its arterial character. North of Roxbury Crossing, it will in addition operate as a relief route for the Southwest Expressway. In the Jackson Square - Roxbury Crossing Area, Columbus Avenue will operate as a service road for the expressway. South of Jackson Square, Columbus Avenue will act as a feeder for the Jackson Square ramps.

As indicated in Table 11-1, volumes will remain near the present 20,000 - 25,000 vehicle per day level, except in the Jackson Square - Roxbury Crossing area, where Columbus Avenue and Centre Street may be operated as one-way service roads, as indicated in Chapter 5. The present four-lane design will be adequate, except for the Jackson Square - Roxbury Crossing area where six lanes will be required.

However, before and during construction of the Southwest Expressway, additional capacity will be necessary. Special traffic controls, such as reversible-lane operation, "No standing" regulations, and operating Tremont Street and Columbus Avenue as a one-way couplet (north of Roxbury Crossing) might be utilized during this interim period.

Columbus Avenue - Seaver Street - Southeast of Egleston Square, Columbus Avenue and Seaver Street will continue to attract substantial amounts

of radial and cross-town traffic. The existing design will be satisfactory for projected volumes, which are slightly above present levels.

To realize full value from the present Columbus Avenue-Seaver Street facility, as well as proposed future improvements in Washington Street, special treatment will be necessary at Egleston Square. These changes, which should be given further detailed study as project planning proceeds, can readily be accomplished in conjunction with the removal of the Washington Street elevated.

Blue Hill Avenue-Warren Street-Harrison Avenue - Because of the large size of the Roxbury-North Dorchester GNRP area, it is necessary to provide a major arterial penetrating this area. The primary purpose of this facility is service to the Roxbury-North Dorchester GNRP. However, it will also serve some through traffic.

Projected volumes range from 25,000 to 30,000 vehicles per day, approximately the same as at present except for Warren Street. To accommodate traffic diverted from Blue Hill Avenue north of Warren Street, the volume assigned to Warren Street will increase from 15,000 vehicles per day at present to 25,000 vehicles per day by 1980.

Warren Street should accordingly be widened as contemplated in the Washington Park Plan to a 100-foot right-of-way incorporating two 34-foot roadways and a 14-foot median divider.

It is important from a traffic operation standpoint to provide a consistent or uniform cross-section for the whole street from Dudley Street to Blue

Hill Avenue.

To avoid the possibility of taking rehabilitated property included in the present project at a future date, design studies for the extension of this widening should be included in current planning for the Washington Park Area, even though the plans would be carried out as part of a later project. It is also essential to maintain the 100-foot right-of-way contemplated for Warren Street all the way from Dudley Street through Deckard Street as part of the present project. For this reason the possibility of taking property on the east side of Warren Street at Moreland Street should be carefully investigated for possible inclusion in the present project.

Blue Hill Avenue narrows from a 90-foot curb-to-curb cross-section to a 70-foot cross-section north of Washington Street (Dorchester). If this street is to accommodate satisfactorily the traffic from both widened Warren Street and the existing two-lane portion of Blue Hill Avenue north Warren Street, at least a 90-foot cross-section is required through this area. The side of Blue Hill Avenue to be utilized for this widening in the Grove Hall area should be determined before construction plans for Washington Park are completed.

Special treatment also will be necessary in the Grove Hall area at the intersections of Blue Hill Avenue with Warren Street, Washington Street and Seaver Street. Further study will be required as project plans are developed.

Harrison Avenue is utilized in order to route through traffic around the major traffic generators in the Dudley Station area.

Harrison Avenue, north of the point where it joins Warren Street should be widened to the same cross-section as Warren Street, as indicated in Table 11-1.

Columbia Road - Columbia Road, which forms the easterly boundary of the GNRP, will continue to be a major arterial. The existing roadway will be ample for projected volumes, except at Columbia Square (Upham's Corner) and Edward Everett Square, where special treatment will be required for adequate capacity. Further study in greater detail will be necessary at these locations as project planning proceeds.

Massachusetts Avenue - Massachusetts Avenue, which forms the northerly boundary of the GNRP, will remain a major arterial serving the planned industrial area and the New Market district. The present cross-section of Massachusetts Avenue in this area provides only one effective lane in each direction, except for the approaches to Edward Everett Square. Projected volumes will require widening, as indicated in Table 11-1, and special treatment will be necessary at Edward Everett Square as previously indicated.

Washington Park Boulevard - The area between Dudley and Seaver Streets at present has no streets serving cross-town traffic between Columbus Avenue and Columbia Road except for the discontinuous sequence of Ritchie, Marcella, Townsend and Quincy Streets. In spite of poor horizontal and vertical alignment,

Table 11-1

PROPOSED MAJOR STREETS
Roxbury-North Dorchester G. N. R. P., R-50

FACILITY	FROM	TO	CLASSIFICATION	NO. OF LANES		ROADWAY WIDTH		R-O-W WIDTH	PROJECTED TRAFFIC		REMARKS
				Present	Proposed	Present	Proposed		Two-Way Directional		
									ADT	Peak Hour Capacity	
				(1)	(1)	(1)	(1)				
Southwest Expwy.	New Haven RR	Inner Belt Expwy.	Expressway	--	4m4	--	48'm48' (2)	Varies 300'ave.	132,000 (3)	5,800 (3)	Design calls for 10' shoulder.
Inner Belt Expwy.	Central Artery	Southwest Expwy.	Expressway	--	4m4	--	48'm48' (2)	Varies	65,000 (3)	2,900 (3)	Capacity limited by connecting facilities.
	Southwest Expwy.	New Haven RR	Expressway	--	4m4	--	48'm48' (2)	Varies	100,000 (3)	3,800 (3)	Capacity limited by connecting facilities.
Columbus Ave.	Inner Belt Expwy.	Roxbury Crossing	Arterial	2m2	2m2	30'm30'	34'm34' (2)	100' 76'-80' (3)	20,000	1,200	On new location. If not relocated, present design adequate.
	Roxbury Crossing	Centre St.	Arterial	2-2	3-0	(60')	Varies	Varies 80' (4)	15,000	1,800	Special channelization at Heath and New Heath Sts. Paired with Centre Street.
	Centre St.	Wash. St.	Arterial	(2-2) 2m2	2m2	(63')	34'm34'	100' 80'	25,000	1,300	Assumes substantial improvement of Eggleston Square.
	(Jackson Sq.)	(Eggleston Sq.)	Arterial	2m2	2m2	30'm30'	30'm30'	80'	22,000	1,200	Present design adequate.
Seaver St.	Walnut Ave.	Blue Hill Ave.	Arterial	2m2	2m2	34'm30'	34'm30'	(90')	22,000	1,200	Present design adequate.
	Blue Hill Ave.	Columbia Rd.	Arterial Collector	1-1	1-0	38'm34'm25'm	40'	40'	4,000	300	No standing north side.
Centre St.	Columbus (Jackson Sq.)	Roxbury Crossing	Arterial	1-1	3-0	Varies	38' (2)	60' 40' (4)	15,000	1,800	Paired with Columbus Ave.
Blue Hill Ave.	Columbia Rd.	Seaver St.	Arterial	3m3	3m3	40'm40'	40'm40'	120' 110'	30,000	1,800	
	Seaver St.	Warren St.	Arterial	2m2	3m3	30'm30'	46'm46'	130' 110'	25,000 (Ave.)	1,300	For Blue Hill Ave. north of Warren St.
Warren St.	Blue Hill Ave.	Wash. Park Blvd.	Arterial	1-1	2m2	38'	34'm34'	100'	25,000	1,300	See collectors.

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FACILITY	FROM	TO	CLASSIFICATION	NO. OF LANES		ROADWAY WIDTH		R-O-W WIDTH	PROJECTED TRAFFIC		PEAK HR. PRACTICAL CAPACITY	
				Present	Proposed	Present	Proposed		ADT	Peak Hour		
				(1)	(1)	(1)	(1)					
Warren St.	Wash. Park Blvd.	Harrison Ave.	Arterial	1-1	2m2	38'	34'm34'	100'	25,000	1,300	1,400	
Harrison Ave.	Warren St.	Inner Belt Exp.	Arterial	1-1	2m2	40'	34'm34'	120'	25,000	1,300	1,400	
Columbia Rd.	Blue Hill Ave.	Wash. Park Blvd.	Arterial	3m3	3m3	40'm40'	40'm40'	120'	30,000	1,500	2,000	No parking peak hours.
Mass. Ave.	Wash. Park Blvd.	Mass. Ave.	Arterial	2t2	3m3	Varies	40'm40'	110'	35,000	1,700	2,000	Special treatment required at Columbia Sq. (Upham's Corner) and Edward Everett Square.
Wash. Park Blvd.	Southampton St.	Columbia Rd.	Arterial	1-1	2m2	46'	52'	80'	20,000	1,000	1,200	Special treatment required at Edward Everett Square.
Heath St.	Centre St.	New Haven (Jackson Sq.)	Arterial	1-1	3-0	34'	48'	Varies	16,000	1,000	1,200	Special treatment required at Jackson Square (See Ch. 5).
New Heath St.	Centre St.	New Haven (Jackson Sq.)	Arterial	1-1	3-0	34'	48'	80'	15,000	1,200	1,500	One-way eastbound. See text, Chapter 5.
Wash. St.	Columbus (Egleston Sq.)	Dudley St.	Collector	1-1	2-2	38'	52'	80'	10,000	600	1,000	One-way westbound. See text, Chapter 5.
Humboldt Ave.	Dudley St.	Inner Belt Exp.	Collector	1-1	2m2	38'	34'm34'	100'	15,000	700	1,000	Elevated railway to be removed.
Walnurt Ave.	Seaver St.	Walnut Ave.	Collector	1-1	1-1	40'	40'	60'	6,000	400	500	New location.
Hampden St.	Humboldt Ave.	Warren St.	Collector	1-1	1-1	30'	44'	60'	6,000	400	500	Continuation of Humboldt Ave.
	Dudley St.	Inner Belt Exp.	Collector	1-1	1-1	34'	44'	60'	9,000	500	550	Special treatment required at intersection with Albany St. and Inner Belt service roads. See Chap. 5.



Table 11-1 (Cont.)

FACILITY	FROM	TO	CLASSI- NO. OF LANES		ROADWAY		R-O-W	PROJECTED TRAFFIC		PEAK HR.	REMARKS
			FICATION		WIDTH			Two-Way	Directional		
			Present	Proposed	Present	Proposed	Proposed			ADT	
Blue Hill Ave. <i>Blue Hill Ave., Warren St., Walville St., Arterial</i>	Warren St.	Dudley St.	1-1	1-1	40'	44'	60'	9,000	500	550	
Dudley St.	Columbia Rd. Blue Hill <i>Arterial</i>	Blue Hill <i>(Columbia Sq.) Ave.</i>	1-1	1-1	40'	44'	60'	9,000	500	550	
	Blue Hill	Hampden St. -Collector- Ave. <i>(DIFF. LIMITS-0.15) Arterial</i>	1-1	2m2	Varies	26'm 26'	80'	14,000	800	1,000	Should be channelized.
Dudley St.	Hampden St. Harrison	Harrison	1-1	1-1	40'	40'	55'	8,000	400	500	
	Harrison Ave. <i>(DIFF. LIMITS-0.15) Arterial</i>	Roxbury St. -Collector- Ave. <i>(Roxbury St. -Collector- Ave. (John Eliot Sq.) Arterial</i>	1-1	2-2	34'	64'	90'	16,000	700	800	To replace Dudley St. -Roxbury St. couplet.
Roxbury St.	Roxbury St. Columbus	Columbus	1-1	2-2	Varies	64'	100'	16,000	700	800	New location. Realigned to lead into Tremont St. in Parker Hill-Fenway area.
Wash. St. <i>(DIFF. LIMITS-0.15) Ave. (Roxbury- Square)</i>	Blue Hill	Columbia	1-1	1-1	40'	40'	60'	8,000	400	500	Channelize intersection of Wash. St. & Blue Hill Ave.

(1) "m" indicates median divider (e.g. 3m3 or 33'm33"). Where there is no median, directional arrangement is shown thus: 2-2, 3-0 (one-way street), or 3-2 (unbalanced lanes).

(2) Does not include 10' paved shoulder.

(3) Source: Time-saving rank order assignments by DPW Consultant. Adjusted to reflect proposed ramp changes.

(4) One-way ADT.

(5) Special controls increase practical capacity per lane to 670 per hour.

(6) "t" indicates left turn lane but no median.

(7) Massachusetts Avenue flares to provide two lanes southbound approaching Edward Everett Square.

inadequate width, and poor pavement surface, these streets now carry from 2,000 to 3,000 vehicles per day. This level of usage is more or less constant over the entire route, although the volume is slightly lower to the east of Warren Street.

These streets are inadequate to serve even this relatively low traffic volume. They cannot be widened on their present alignment without extensive land taking. Routing traffic through a residential district on a series of streets not designed for this purpose creates a hazard to pedestrians and motorists alike.

It is estimated that a minimum of 5,000 vehicles per day would use an adequate east-west street through the central part of Roxbury if it existed today within the limits of the Washington Park Project. With a direct connection to Columbus Avenue in the vicinity of Heath Street, probably 8,000 vehicles per day would immediately make use of this route. Upwards of 15,000 vehicles per day would use this route, if extended west to Jamaicaaway and east to Columbia Road, by 1975. This volume of traffic should be served by a street with four moving lanes, in addition to left turn storage lanes. A right-of-way 100-120 feet wide is required in order to provide for an adequate median divider and landscaping between the curb and the property line. Access control should be incorporated into the design in order to improve traffic safety and stabilize property values.

The proposed Washington Park Boulevard included in the project plans for Washington Park will satisfy the need for a new high-type cross-town

facility in this general location. Its proposed cross-section will provide capacity to absorb present and future traffic volumes assignable to the travel corridor.

To obtain maximum value from this facility, it should be connected via Heath Street to a high-type interchange with Route 9 and the Riverway-Jamaicaway, as described in Chapter 5. Quincy Street east of the Washington Park area also will have to be satisfactorily widened to serve as an extension of Washington Park Boulevard easterly to Columbia Road.

Collector Streets

The collector street system of the Roxbury-North Dorchester GNRP area carries trips generated in the area to and from the arterial system. Collector streets also are utilized for short trips within the GNRP area. Several of the planned collector streets in this GNRP are presently serving as major arterials.

Washington Street - Washington Street will provide a direct route for autos and transit vehicles from Egleston Square north to the Dudley Station area and the Inner Belt Expressway. Projected traffic volumes are approximately the same as at present; however, traffic will be more locally-oriented. At least two moving lanes will be required during peak hours. Two lanes each way should be provided at all times north of Dudley Street, to allow for heavier cross-traffic and turning movements. Washington Street south of Dudley Street should be widened to at least 52 feet between curbs and should be relocated north and west of its present alignment to carry through traffic around the Dudley Station area. A divided roadway with left turn storage lanes is

recommended from Dudley Street to the Inner Belt Expressway on this new location.

This improvement will have to be coordinated with the removal of the elevated railway on Washington Street and with urban renewal plans in the Dudley Station area.

Future projects on the west side of Washington Street should provide for widening Washington Street to an 80-foot right-of-way, south of Dudley Street, and a new 100-foot right-of-way north of Dudley Street. Plans for the redevelopment of the MTA bus garage and Notre Dame Academy sites should make allowance for this future widening of Washington Street on the west side. Taking of additional buildings at Egleston Square may be necessary when widening and intersection improvement take place. No additional residential property would be affected.

Humboldt Avenue - Humboldt Avenue will remain as a collector street serving the Washington Park area. The projected volume is approximately 6,000 vehicles per day. Although a large portion of the traffic on Humboldt Avenue probably will turn into Washington Park Boulevard, care should be taken in the development of project plans to provide a continuous alignment, so that this street also can be used conveniently by motorists traveling within the Washington Park area in a north-south direction. A width of 44 feet between curbs is recommended to meet the standards established for major streets.

Walnut Avenue - The section of Walnut Avenue north of Humboldt Avenue forms an extension of Humboldt Avenue, connecting it with Warren

Street. It also will be a collector street, It should be widened to at least 44 feet between curbs, to meet the standards established for major streets and to coincide with the greater width of Humboldt Avenue. As bus service will be continued on the Humboldt Avenue line, the radius of the curb on the northwest corner of Walnut Avenue and Warren Street should be at least 40 feet.

South of its junction with Humboldt Avenue, Walnut Avenue will become a discontinuous local feeder street. This severing of Walnut Avenue should be coordinated with the reconstruction of Washington Street to provide the additional capacity needed to handle the additional "overflow" traffic now using Walnut Avenue.

It also will be necessary to provide a break in the median of Washington Park Boulevard and to incorporate a left turn lane at the intersection, in order for Walnut Avenue to serve its planned function as a local feeder street. Continuous through travel on Walnut Avenue will be effectively prevented by ultimately dead-ending the section north of Washington Park Boulevard.

Hampden Street - Hampden Street will remain as the northerly extension of Blue Hill Avenue from Dudley Street to the Albany - Southampton - Northampton Street intersection. Traffic volumes will be approximately the same as they are today -- 9,000 to 10,000 vehicles per day. Although this volume is within the capacity of a single lane in each direction, two lanes in the direction of heavier flow will be desirable during peak hours. Therefore, a curb-to-curb width of 44 feet is recommended.

The operation of Hampden Street will depend on the final design of the Massachusetts Avenue - Albany Street intersection and the ramp system of the Inner Belt Expressway.

Blue Hill Avenue (North of Warren Street)- A major reason for the selection of Warren Street as a major arterial was the desire of the GNRP staff to retain the existing commercial character of Blue Hill Avenue north of Warren Street. Projected traffic is somewhat less than the present volume of 12,500 vehicles per day. The present cross-section will provide adequate capacity; however, a width of 44 feet will be desirable to meet desirable standards for major streets.

Dudley Street - Although Dudley Street will be relieved of most through traffic by Washington Park Boulevard and the Inner Belt Expressway, it will remain an important collector street serving the Dudley Station area. It will connect this commercial center with Columbia Square (Upham's Corner) on the east and Roxbury Crossing on the west.

Traffic volumes will be close to present levels, approximately 9,000 to 10,000 vehicles per day east of Harrison Avenue. West of Harrison Avenue, a volume of approximately 10,000 vehicles per day can be anticipated after the Southwest and the Inner Belt Expressways are completed. Four lanes will be required west of Harrison Avenue and will be desirable during peak hours east of Harrison Avenue.

The present width of approximately forty feet will be adequate between

Columbia Road and Blue Hill Avenue. However, a width of 44 feet would be desirable to meet the standards for major streets. From Blue Hill Avenue to Hampden Street, special treatment will be required, with two lanes in each direction to provide for the combined flow of Blue Hill Avenue - Hampden Street and Dudley Street. From Hampden Street to Harrison Avenue, widening to 44 feet would be desirable, and should be considered in the development of project plans in this area.

West of Harrison Avenue, a minimum width of 52 feet between curbs is necessary. A width of 64 feet is recommended if curb parking or loading is retained. This will permit Roxbury Street to be downgraded to local service from Washington Street to the Roxbury - Centre Dudley Street intersection (John Eliot Square).

Roxbury Street - Roxbury Street is the westward extension of Dudley Street to Roxbury Crossing. The projected traffic volume is approximately 10,000 vehicles per day. Four lanes will be required.

Consideration should be given in the development of project plans to a relocation of Roxbury Street from John Eliot Square to Roxbury Crossing. The new alignment should lead directly to the Tremont Street underpass of the New Haven Railroad tracks. A minimum width of 52 feet will be required; 64 feet, if curb parking or loading is provided.

Washington Street (Dorchester) - Washington Street (Dorchester) will continue to be an important transit route, and will connect the Grove Hall

commercial area with its trade area in Dorchester. Little or no increase in traffic is anticipated on this street. The present cross-section will be adequate; however, some change in the channelization at the intersection of Washington Street with Blue Hill Avenue may be desirable as project plans are developed.

Local Feeder Streets

In addition to the major streets so far discussed, there are certain key local streets which perform a secondary collector function for small sub-areas within the GNRP or project area.

Residential Feeder Streets - Important residential feeder streets in the Roxbury GNRP area will include Walnut Avenue, Townsend and Crawford Streets, Elm Hill Avenue, Dale and Circuit Streets, Geneva Avenue, and Waverly-Cottage Street. Walnut Avenue will be interrupted north of the Washington Park Boulevard, in order to discourage its use by through traffic. A number of other residential feeder streets are shown on the plan (See Figure 11-2). However, they may be modified as part of future detailed project planning.

Almost all of these streets have 24 to 26-foot roadways, which are adequate for two-lane operation only if all curb parking can be eliminated.⁽⁴⁾ A width of 40 feet is recommended (36 feet as an absolute minimum) for a feeder street with parking on both sides in a high-density residential area. This width should be provided wherever project plans permit. A width of 30 feet is recommended (28 feet as an absolute minimum) where parking is to be permitted on one side only.

(4) Because of the strategic location of these streets, two-way operation is desirable.

Non-Residential Feeder Streets - Norfolk Avenue-Yeoman Street, Magazine Street, and East Cottage Street serve the area northeast of Dudley Street where industrial development is planned. Where project plans call for reconstruction of these streets, they should be built to major-street standards (i.e., 44-foot roadway).

SPECIFIC TRAFFIC PROBLEMS

Several specific problems were mentioned in the discussions of the circulation plan with the BRA planning staff working on the Regional Core circulation plan and the Roxbury-North Dorchester GNRP. These include the street system for the Washington Park Project and street changes in the northwest corner of the GNRP.

The Washington Park Plan

The circulation plan for Washington Park is an integral part of the circulation plan for the GNRP area as a whole. The construction of a section of the Washington Park Boulevard is a part of the project. So is the initial widening of Warren Street from Dudley to Deckard Street south of the Roxbury High School.

Land is being acquired in the course of the project to permit a substantial building setback along Washington Street from the vicinity of Saint James Avenue to Eggleston Square. The proposed widening of the street will be done on the west side in a subsequent project, after the elevated structure is removed. Widening Dudley Street between Harrison Avenue and Washington Street will

also be done as a part of the Washington Park Project.

Improvement of the Egleston Square and Grove Hall areas will be undertaken as renewal action proceeds in Roxbury. The southerly extension of the Warren Street widening, and the westerly and easterly extension of Washington Park Boulevard, also will be included in subsequent renewal projects.

The substantial increases in off-street parking facilities shown on the illustrative site plan will encourage observance and enforcement of parking regulations on major streets in the area. The widening of Washington Street (Roxbury) and reconstruction of Egleston Square will permit the interruption of Walnut Avenue as is proposed in the Washington Park project plans. The widening of Warren and Blue Hill Avenues through the Grove Hall area would furnish major traffic relief in that area.

Parking in Residential Areas - A majority of the existing local streets in the project area have roadways in the 24 to 26-foot range. An extensive one-way operations system in the area will permit curb parking to be retained on these streets, but on one side only. Project plans call for the location of additional parking space in off-street lots as opportunities arise. This policy will be successful if a lot can be located within 200 to 500 feet of each dwelling served, and if the lots are adequately improved and maintained.⁽⁵⁾

(5) Illumination is particularly important.

Supplementary parking can also be provided in bays along local feeder or collector streets. Where this technique is used, care should be taken in the final plans so that cars leaving the bays do not have to back into the traffic lanes of the adjacent street. Otherwise, they would create a definite accident hazard and would interfere with moving traffic.

Circulation South of the Dudley Station Area - Cliff Street, which will be discontinued under present project plans, now carries 5,000 vehicles per day in a southeasterly direction. Widening Dudley Street will provide an alternate routing for most of these vehicles. However, some vehicles will probably use Saint James Street as a bypass of the Dudley Street commercial area.

The advisability of developing some means of purely local circulation south of the proposed Dudley Street Government Center should also be further explored.

Street Changes in Northwest Corner of G. N. R. P.

The precise location of the interchange between the Inner Belt and the Southwest Expressway is still indefinite. Plans for the South End Project presently contemplate the discontinuation of Tremont Street, the relocation of Columbus Avenue, the location of the interchange between the Southwest Expressway and the Inner Belt next to the New Haven Railroad tracks, and the construction of the so-called "Southwest Expressway Extension", a

high-type facility along the New Haven Railroad tracks north of the Inner Belt.

These changes, which are discussed in somewhat greater detail in Chapter 5, would improve the accessibility of the Dudley Station area from the South End and from the Whittier Street Public Housing Project. The area which would be utilized by the Inner Belt-Southwest Expressway interchange under the D. P. W. recommended plan would become available for industrial or other redevelopment. However, existing substantial commercial and industrial buildings on Columbus Avenue would have to be taken. Columbus Avenue would have to be relocated in the Roxbury-North Dorchester GNRP north of Roxbury Crossing.

TRAFFIC PROJECTIONS

General projections were made of motor vehicle trip generation for Roxbury and nearby areas. The present and projected car ownership in these areas, as given in the B. C. Seminar Study,⁽⁶⁾ was used to develop expansion factors for present traffic across selected screen lines. These totals were modified by consideration of expressway volumes, as projected by the B. C. Seminar Research Bureau and the consultants of the Massachusetts D. P. W.⁽⁷⁾ This method yields very general results, but is of value in determining local

(6) op. cit. Page II-11-1

(7) op. cit. Page II-11-1

street needs. More precise and reliable projections will result from the Boston Regional Planning Project, which is now under way.

On the basis of these projections, it was estimated that radial traffic volumes south of Washington Park Boulevard will increase approximately 117 per cent between now and 1980 (including through traffic on expressways), and volumes south of the Inner Belt will increase approximately 116 per cent during the same period. Local radial traffic volumes are expected to increase only about 35 per cent, including some through traffic from Dorchester using Blue Hill Avenue and Warren Street. Cross-town trips are expected to increase about 20 per cent over-all, although it is possible that the Washington Park Boulevard and its extension will induce additional cross-town trips.

Screenlines were established in the Roxbury area to facilitate assignment of traffic to present and planned facilities. Tables 11-1 compares existing and projected radial and cross-town volumes with planned capacity on major streets. It is evident that adequate capacity can be provided within the framework of the proposed major street plan.

The available capacity of the expressways will be completely utilized, and in addition a majority of the major streets will be operating at 70 to 80 per cent of their practical capacities. The traffic projections and highway needs in the study area are discussed more completely in Chapter 2.



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